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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,646	02/05/2001	Susumu Takahashi	202447US2	8312

22850 7590 09/20/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314	EXAMINER
	SINGH, RACHNA

ART UNIT	PAPER NUMBER
2176	

NOTIFICATION DATE	DELIVERY MODE
09/20/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>19 July 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>65-91</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>65-91</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 3/23/27.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This action is responsive to communications: A request for continued

examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was

filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been

timely paid, the finality of the previous Office action has been withdrawn pursuant to 37

CFR 1.114. Applicant's submission filed on 07/19/07 has been entered.

2.   Claims 65-91 are pending. Claims 33-64 have been cancelled. Claims 65, 73,

80, and 87 are independent claims.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 65-66, 73-74, 80-81, and 87 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tamaki et al., US 2001/0014836 A1, 8/16/01 (filed 2/12/01,

continuation filed 6/19/98).

Regarding Independent Claims 65, 73, 80, and 87, Tamaki discloses a

production planning system in which a production plan comprises a data storage unit for

storing parts list information providing a list of required parts, a parts stock storage

section indicating parts stock information which meets the preamble, *a system for*

creating and/or editing structured parts. See abstract and page 6, paragraphs

[0117]-[0118]. Tamaki discloses a unit for storing production plan information on how to

produce a particular product along with a parts list storage section for storing the parts

list information providing a list of required parts which meets the limitation, *an assembly*

information storage configured to store assembly information including name of

an assembly including a plurality of parts, and a plurality of parts information

including name of parts utilized in said assembly. See page 3, paragraph [0033] ,

page 6, paragraph [0118], page 7, paragraph [0127]-[0128] and figures 1 and 3.

Tamaki discloses that an electronic circuit board could be one of the products being

created on a production line which meets the limitation*, each assembly*

corresponding to an electronic circuit board. See page 10, paragraph [0155].

Examiner Note: A "product" is being interpreted as an "assembly". Furthermore,

Examiner is interpreting "a list of parts information" as including the name of the parts

used in the product.

Tamaki discloses a parts list storage section for storing the parts list information

providing a list of required parts for a product which meets the limitation, *a parts*

information storage configured to store a plurality of said parts information, and

parts attribute information including functions of parts corresponding to said

parts information. See page 6, paragraph [0118].

Tamaki discloses retrieving parts information from the production planning

information and the parts list information stored in the data storage unit for use in a

material resource planning unit which meets the limitation, *a parts information*

retrieving device configured to retrieve a plurality of parts information from said

assembly information storage based on input assembly information, to retrieve

the parts attribute information from said parts information storage based on the

retrieved parts information, and to retrieve other parts information from said parts

information storage based on the retrieved parts attribute information.

Tamaki discloses an adjusting means in which superfluous or deficient parts are

identified from the parts stock information and parts information. Superfluous parts are

eliminated as are deficient parts and the production planning system is adjusted

accordingly. See page 6, paragraph [0117]-[0122] and page 18. The parts list

information is generated by the material resource plan unit for calculating the required

amount of material resources based on this list. The production system receives

production planning information including parts list information from the parts acquisition

system. See page 6. The updated structural parts list is provided to the production

planning system where it is stored in a data storage unit which meets the limitation, *an*

assembly information update device configured to replace the parts information

corresponding to the assembly information with other parts information retrieved

from the parts information storage, and to store the replaced parts information

corresponding to the assembly information in a memory. See page 18, second column.

Tamaki does not expressly teach the "parts attribute information including functions of parts"; however, it was well known in the art at the time of the invention that any part of an assembly has a function. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention that a list of "required parts" would include the function of such parts because a "required part" would be identified by its use or function in the product.

In reference to claims 66, 74, and 81, Tamaki teaches that the parts information in storage may include information regarding a name of the part, a feature such as quantity consumed, a cost evaluation module, etc. See figures 24-27.

5.   Claims 67-72, 75-79, 82-86, and 88-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaki et al., US 2001/0014836 A1, 8/16/01 (filed 2/12/01, continuation filed 6/19/98) in view of Tegethoff, US 5,539,652, 7/23/96.

In reference to claim 67, Tamaki does not teach a compatibility prediction information output device configured to survey on predetermined items (i.e. packaging density, arrangement, and operation verification) based on parts information list created

by parts information list creating/editing device and to create and output decision

information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in

electronic circuit design. Tegethoff teaches a test simulator that simulates a

manufacturing text of boards and multichip modules from design concept to aid the

designer in selecting trade-offs in design. The methods models fault probabilities for the

circuit design based on the components. Tegethoff further discloses the Manufacturing

Test Simulator (MTSIM) which is a concurrent engineering simulation tool for

manufacturing test, that is, a tool to predict manufacturing test behavior while a product

is still being designed. See column 6. MTSIM uses pareto analysis in which a user can

evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can

be done at three levels of abstraction including individual components, groups of

components with the same part number, and groups of components. All part numbers

are assigned a category based on level of integration and functionality. See column 11.

Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving

to support density demands of many modern circuit designs. Multi-chip modules and

twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit

density. SMT chip packages with lead counts of over 1000 are not uncommon. New

fabrication processes are used to enable higher circuit densities usually have higher

defect rates than older low density fabrication technologies. Tegethoff teaches

identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

In reference to claim 68, Tamaki does not teach a compatibility prediction information output device configured to survey on predetermined items (i.e. packaging density, arrangement, and operation verification) based on parts information list created by parts information list creating/editing device and to create and output decision information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in electronic circuit design. Tegethoff teaches a test simulator that simulates a manufacturing text of boards and multichip modules from design concept to aid the designer in selecting trade-offs in design. The methods models fault probabilities for the circuit design based on the components. Tegethoff further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent engineering simulation tool for manufacturing test, that is, a tool to predict manufacturing test behavior while a product is still being designed. See column 6. MTSIM uses pareto analysis in which a user can evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can be done at three levels of abstraction including individual components, groups of

components with the same part number, and groups of components. All part numbers

are assigned a category based on level of integration and functionality. See column 11.

Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving

to support density demands of many modern circuit designs. Multi-chip modules and

twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit

density. SMT chip packages with lead counts of over 1000 are not uncommon. New

fabrication processes are used to enable higher circuit densities usually have higher

defect rates than older low density fabrication technologies. Tegethoff teaches

identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc

in a system of Tamaki's structured parts list because early prediction of manufacturing

behavior drives design changes which optimize the product's manufacturability and

testability, thus improving product quality and reducing cost and utilizing a parts list

would help facilitate this prediction. See column 6 of Tegethoff.

In reference to claim 69, Tamaki does not teach a compatibility prediction

information output device configured to survey on predetermined items (i.e. packaging

density, arrangement, and operation verification) based on parts information list created

by parts information list creating/editing device and to create and output decision

information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in electronic circuit design. Tegethoff teaches a test simulator that simulates a manufacturing text of boards and multichip modules from design concept to aid the designer in selecting trade-offs in design. The methods models fault probabilities for the circuit design based on the components. Tegethoff further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent engineering simulation tool for manufacturing test, that is, a tool to predict manufacturing test behavior while a product is still being designed. See column 6. MTSIM uses pareto analysis in which a user can evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can be done at three levels of abstraction including individual components, groups of components with the same part number, and groups of components. All part numbers are assigned a category based on level of integration and functionality. See column 11. Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving to support density demands of many modern circuit designs. Multi-chip modules and twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit density. SMT chip packages with lead counts of over 1000 are not uncommon. New fabrication processes are used to enable higher circuit densities usually have higher defect rates than older low density fabrication technologies. Tegethoff teaches identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing

behavior drives design changes which optimize the product's manufacturability and

testability, thus improving product quality and reducing cost and utilizing a parts list

would help facilitate this prediction. See column 6 of Tegethoff.

In reference to claim 70, Tamaki does not teach a compatibility prediction

information output device configured to survey on predetermined items (i.e. packaging

density, arrangement, and operation verification) based on parts information list

created by parts information list creating/editing device and to create and output

decision information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in

electronic circuit design. Tegethoff teaches a test simulator that simulates a

manufacturing text of boards and multichip modules from design concept to aid the

designer in selecting trade-offs in design. The methods models fault probabilities for the

circuit design based on the components. Tegethoff further discloses the Manufacturing

Test Simulator (MTSIM) which is a concurrent engineering simulation tool for

manufacturing test, that is, a tool to predict manufacturing test behavior while a product

is still being designed. See column 6. MTSIM uses pareto analysis in which a user can

evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can

be done at three levels of abstraction including individual components, groups of

components with the same part number, and groups of components. All part numbers

are assigned a category based on level of integration and functionality. See column 11.

Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving

to support density demands of many modern circuit designs. Multi-chip modules and twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit density. SMT chip packages with lead counts of over 1000 are not uncommon. New fabrication processes are used to enable higher circuit densities usually have higher defect rates than older low density fabrication technologies. Tegethoff teaches identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

In reference to claim 71, Tamaki does not teach a compatibility prediction information output device configured to survey on predetermined items (i.e. packaging density, arrangement, and operation verification) based on parts information list created by parts information list creating/editing device and to create and output decision information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in electronic circuit design. Tegethoff teaches a test simulator that simulates a manufacturing text of boards and multichip modules from design concept to aid the designer in selecting trade-offs in design. The methods models fault probabilities for the

circuit design based on the components. Tegethoff further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent engineering simulation tool for manufacturing test, that is, a tool to predict manufacturing test behavior while a product is still being designed. See column 6. MTSIM uses pareto analysis in which a user can evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can be done at three levels of abstraction including individual components, groups of components with the same part number, and groups of components. All part numbers are assigned a category based on level of integration and functionality. See column 11. Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving to support density demands of many modern circuit designs. Multi-chip modules and twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit density. SMT chip packages with lead counts of over 1000 are not uncommon. New fabrication processes are used to enable higher circuit densities usually have higher defect rates than older low density fabrication technologies. Tegethoff teaches identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of Tamaki's structured parts list because early prediction of manufacturing behavior drives design changes which optimize the product's manufacturability and testability, thus improving product quality and reducing cost and utilizing a parts list would help facilitate this prediction. See column 6 of Tegethoff.

In reference to claim 72, Tamaki does not teach a compatibility prediction

information output device configured to survey on predetermined items (i.e. packaging

density, arrangement, and operation verification) based on parts information list created

by parts information list creating/editing device and to create and output decision

information for compatibility prediction based on results from said survey.

Tegethoff, however, teaches a method for manufacturing test simulation in

electronic circuit design. Tegethoff teaches a test simulator that simulates a

manufacturing text of boards and multichip modules from design concept to aid the

designer in selecting trade-offs in design. The methods models fault probabilities for the

circuit design based on the components. Tegethoff further discloses the Manufacturing

Test Simulator (MTSIM) which is a concurrent engineering simulation tool for

manufacturing test, that is, a tool to predict manufacturing test behavior while a product

is still being designed. See column 6. MTSIM uses pareto analysis in which a user can

evaluate simulation results to determine faults, test coverage, etc. Pareto analysis can

be done at three levels of abstraction including individual components, groups of

components with the same part number, and groups of components. All part numbers

are assigned a category based on level of integration and functionality. See column 11.

Furthermore, Tegethoff teaches that he technology of circuit board assembly is evolving

to support density demands of many modern circuit designs. Multi-chip modules and

twelve-mil pitch surface mount technology (SMT) are frequently used to improve circuit

density. SMT chip packages with lead counts of over 1000 are not uncommon. New

fabrication processes are used to enable higher circuit densities usually have higher

defect rates than older low density fabrication technologies. Tegethoff teaches

identifying defects in packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc

in a system of Tamaki's structured parts list because early prediction of manufacturing

behavior drives design changes which optimize the product's manufacturability and

testability, thus improving product quality and reducing cost and utilizing a parts list

would help facilitate this prediction. See column 6 of Tegethoff.

Claims 75-79 are rejected under the same rationale used in claims 67, 69, 70,

71, and 72 respectively above.

Claims 82-86 are rejected under the same rationale used in claims 67, 69, 70,

71, and 72 respectively above.

Claims 88-91 are rejected under the same rationale used in claims 67, 69, 70,

and 71 respectively above.

Response to Arguments

6.   Applicant's amendments and arguments filed on 01/19/07 have been fully

considered.   Applicant's amendments have been addressed in the claim rejections

above.

Applicant argues on page 14 of the Remarks that Tamaki is not directed to a

system for creating or editing structured parts list information. Tamaki discloses a

production planning system in which a production plan comprises a data storage unit for

storing parts list information providing a list of required parts, a parts stock storage

section indicating parts stock information which meets the preamble, *a system for*

creating and/or editing structured parts. See abstract and page 6, paragraphs

[0117]-[0118].

Applicant further argues on pages 14-16 that Tamaki discloses a parts list

storage section but does not disclose that the parts list storage section stores

information of different assemblies such as an electronic circuit board including parts,

and information of a name of the parts. Examiner disagrees that Tamaki does not

disclose a plurality of products (i.e. assemblies, electronic circuit boards). See pages 1-

2, paragraphs [0013], [0016], [0019], and [0021] which discuss a plurality of products in

a production planning system. Tamaki discloses a unit for storing production plan

information on how to produce particular products along with a parts list storage section

for storing the parts list information providing a list of required parts which meets the

limitation, *an assembly information storage configured to store assembly*

information for a plurality of assemblies including name of an assembly including

a plurality of parts, and a plurality of parts information including name of parts

utilized in said assembly. See page 3, paragraph [0033], page 6, paragraph [0118],

page 7, paragraph [0127]-[0128] and figures 1 and 3.

Examiner notes that a "product" is being interpreted as an "assembly".

Furthermore, Examiner is interpreting "a list of parts information" as including the name

of the parts used in the product. Tamaki further discloses a parts list storage section for

storing the parts list information providing a list of required parts for a product.

Applicant argues Tamaki does not teach "parts information retrieving device" or

"assembly information update device". Tamaki discloses retrieving parts information

from the production planning information and the parts list information stored in the data

storage unit for use in a material resource planning unit which meets the limitation, *a*

parts information retrieving device configured to retrieve a plurality of parts

information from said assembly information storage based on input assembly

information. Tamaki discloses an adjusting means in which superfluous or deficient

parts are identified from the parts stock information and parts information. Superfluous

parts are eliminated as are deficient parts and the production planning system is

adjusted accordingly. See page 6, paragraph [0117]-[0122] and page 18. The parts list

information is generated by the material resource plan unit for calculating the required

amount of material resources based on this list. The production system receives

production planning information including parts list information from the parts acquisition

system. See page 6. The updated structural parts list is provided to the production

planning system where it is stored in a data storage unit which meets the limitation, *an*

assembly information update device configured to replace the parts information

corresponding to the assembly information with other parts information retrieved

from the parts information storage, and to store the replaced parts information

corresponding to the assembly information in a memory. See page 18, second

column.

Applicant argues the parts list storage section of Tamaki does not store

information on a plurality of assemblies. Examiner disagrees. See pages 1-2,

paragraphs [0013], [0016], [0019], and [0021] which discuss a plurality of products in a

production planning system.

Applicant argues Tamaki does not disclose the parts attribute information

includes functions of parts. Tamaki does not expressly teach the "parts attribute

information including functions of parts"; however, it was well known in the art at the

time of the invention that any part of an assembly has a function. Therefore, it would

have been obvious to a person of ordinary skill in the art at the time of the invention that

a list of "required parts" would include the function of such parts because a "required

part" would be identified by its use or function in the product.

Regarding Applicant's arguments directed to the motivation of combining

Tegethoff and Tamaki, Examiner disagrees. As stated in the rejections above, it would

have been obvious to a person of ordinary skill in the art at the time of the invention to

incorporate Tegethoff's prediction concerning operation, simulation, etc in a system of

Tamaki's structured parts list because early prediction of manufacturing behavior drives

design changes which optimize the product's manufacturability and testability, thus

improving product quality and reducing cost and utilizing a parts list would help facilitate

this prediction. See column 6 of Tegethoff.

Applicant argues there is no basis for the combination because Tegethoff's

simulation of an electronic circuit design is irrelevant to the system of Tamaki.

Examiner disagrees. It has been held that a prior art reference must either be in the

field of applicant's endeavor or, if not, then be reasonably pertinent to the particular

problem with which the applicant was concerned, in order to be relied upon as a basis

for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24

USPQ2d 1443 (Fed. Cir. 1992). In this case, Tegethoff is concerned method for

manufacturing test simulation in electronic circuit design. Tegethoff teaches a test

simulator that simulates a manufacturing text of boards and multichip modules from

design concept to aid the designer in selecting trade-offs in design. The methods

models fault probabilities for the circuit design based on the components. Tegethoff

further discloses the Manufacturing Test Simulator (MTSIM) which is a concurrent

engineering simulation tool for manufacturing test, that is, a tool to predict

manufacturing test behavior while a product is still being designed. See column 6.

MTSIM uses pareto analysis in which a user can evaluate simulation results to

determine faults, test coverage, etc. Pareto analysis can be done at three levels of

abstraction including individual components, groups of components with the same part

number, and groups of components. All part numbers are assigned a category based

on level of integration and functionality. See column 11. Furthermore, Tegethoff

teaches that he technology of circuit board assembly is evolving to support density

demands of many modern circuit designs. Multi-chip modules and twelve-mil pitch

surface mount technology (SMT) are frequently used to improve circuit density. SMT

chip packages with lead counts of over 1000 are not uncommon. New fabrication

processes are used to enable higher circuit densities usually have higher defect rates

than older low density fabrication technologies. Tegethoff teaches identifying defects in

packaging densities. See columns 1-4.

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to incorporate Tegethoff's prediction concerning operation, simulation, etc

in a system of Tamaki's structured parts list because early prediction of manufacturing

behavior drives design changes which optimize the product's manufacturability and

testability, thus improving product quality and reducing cost and utilizing a parts list

would help facilitate this prediction. See column 6 of Tegethoff.

In view of comments above, the rejection is maintained.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rachna Singh whose telephone number is 571-272-

4099. The examiner can normally be reached on M-F (8:30AM-6:00PM). If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug

Hutton can be reached on 571-272-4137.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

Rachna Singh
09/13/07